State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
Oshkosh Service Center
625 E County Road Y, Suite 700
Oshkosh, WI 54901-9731

Scott Walker, Governor
Cathy Stepp, Secretary
Telephone 608-266-2621
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October 17, 2014

WIC-NE-2014-5-03071

George & Holdt Soil Consultants
Dave George
6350 Nero Lane
Sobieski, WI 54171

RE: Wetland Delineation Report for approximately 5 acres located in the NW1/4 of the SW1/4 of Section 31, Township 24 North, Range 22 East, Town of Humboldt, Brown County.

Dear Mr. George:

We have reviewed the wetland delineation report you prepared for the above mentioned site. This letter serves as confirmation that the wetland boundaries shown on the July 15, 2014 wetland delineation map are acceptable. This finding is based upon an October 9, 2014 field visit. Any filling or grading within these areas will require DNR approvals. Our wetland confirmation is valid for five years unless altered site conditions warrant a new wetland delineation be conducted.

In order to comply with Chapter 23.321, State Statutes, please supply the department with an electronic file, in CAD or GIS format, of all wetland boundaries delineated within the project area. The electronic file should utilize a State Plane Projection, and be overlain onto recent aerial photography. If a different projection system is used, please indicate what system the data are projected to. Please send these data to Calvin Lawrence (608-266-0756, or calvin.lawrence@wisconsin.gov).

If development is planned for the property, you are required to avoid take of endangered and threatened species, or obtain incidental take authorization, to comply with the state's Endangered Species Law. To insure compliance with the law, you should submit an endangered resources review form (Form 1700-047), available at http://dnr.wi.gov/topic/ERReview/Review.html. The Endangered Resources Program will provide a response letter identifying any endangered and threatened species and any conditions that must be followed to address potential incidental take.

In addition to contacting WDNR, be sure to contact your local zoning office and U.S. Army Corps of Engineers to determine if any local or federal permits may be required for your project.

If you have any questions, please contact me at (920) 303-5439 or email thomas.nedland@wisconsin.gov.

Sincerely,

Tom Nedland
Wetland Identification Coordinator

cc: Joey Shoemaker, U.S. Army Corps of Engineers
Bill Bosiacki, Brown County Zoning Administrator
Crystal Von Holdt, DNR

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WETLAND DELINEATION AMENDMENT

Client: Dekeyser Construction

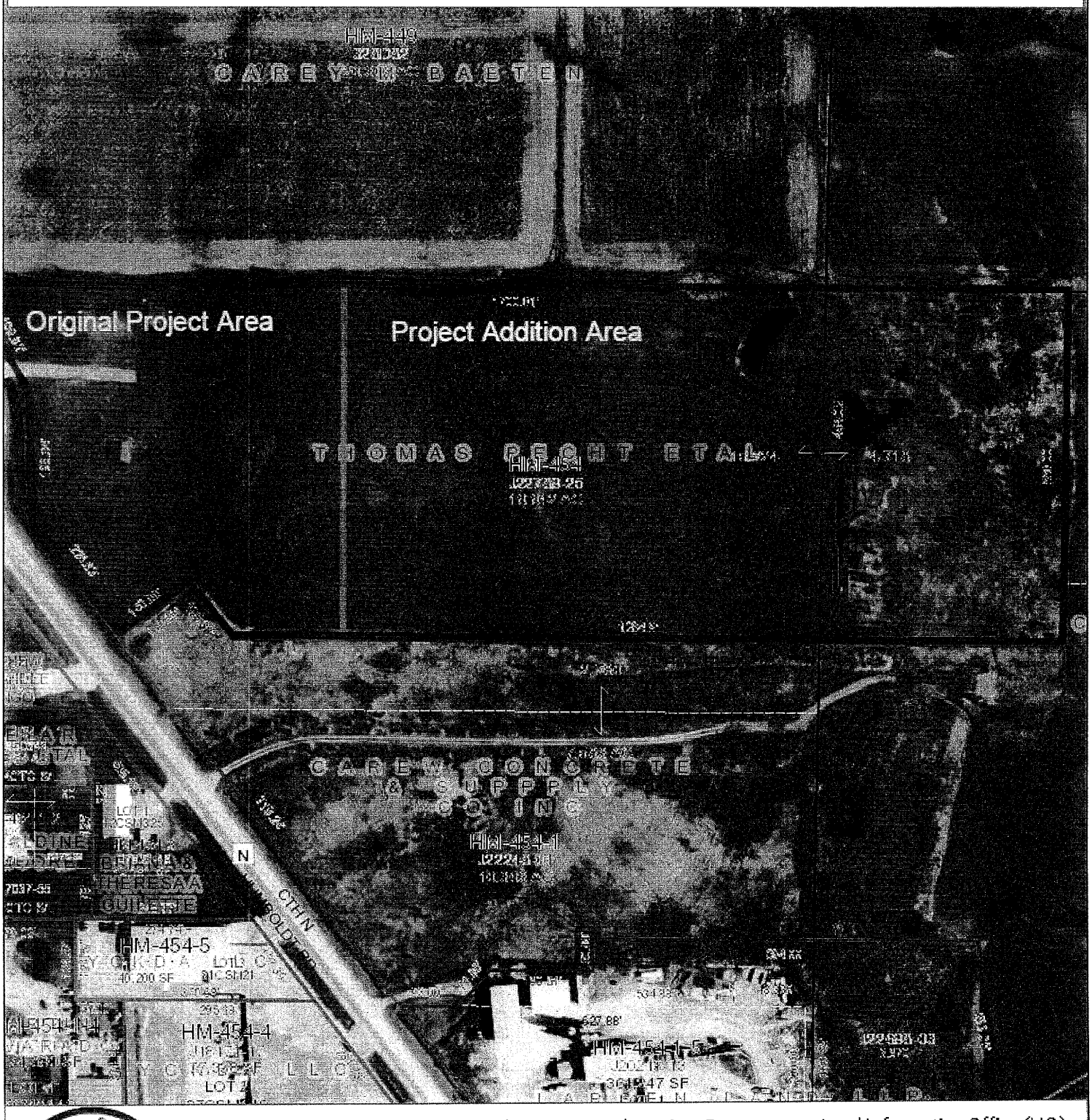
Loction: NW,SW,S31,T24N-R22E, Town of Humboldt, Brown County, Wisconsin

Scope: On September 12, 2014, a Wetland Review was conducted by Tom Nedland, WDNR. At the time of the review, it was decided to "expand" the study area beyond the original study area, this further investigation was instituted mainly for future permitting, as there may be a question by the WDNR regarding additional available upland area. Procedure was discussed with Mr. Nedland at the time of the field visit. On September 23, 2014, George and Holdt visited the site and evaluated the remaining property to determine if additional wetlands exist on the property. The accompanying map addresses our findings in regards to wetland/upland boundaries.

By: Dave George

George and Holdt

<Title>



Map provided by the Brown County Planning & Land Services Department - Land Information Office (LIO)

A map key (legend) and other information about this map is available at: **maps.gis.co.brown.wi.us**

This map is intended for advisory purposes only. It is based on sources believed to be reliable, but Brown County distributes this information on an "As Is" basis. No warranties are implied. Boundaries shown on this map are general representations only and should not be used for legal documentation, boundary survey determinations, or other property boundary issues.

12/04/2014
Scale 1:2400

6350 NERO LANE, SOBIESKI, WI 54171
Phone: 920-822-9918 **Fax:** 920-822-9937
Web: georgeandholdt.com **Email:** email@georgeandholdt.com

- Professional Soil Scientists -Soil Consultants -Certified Soil Testers
- Licensed POWTS (Septic) Inspectors -Wetland Delineators
- Registered POWTS (Septic) Designers -Licensed POWTS Maintainers

July 15, 2014

RE: Wetland Delineation

Legal: NW,SW,S31,T24N-R22E, Town of Humboldt, Brown County, Wisconsin

Tax Parcel No: HM-454 (Northview Road)

DeKeyser Construction
522 Clement Street
Green Bay, WI 54302

To Whom It May Concern:

The following Wetland Delineation was conducted as a pre-emptive measure for a future excavating business relocation. DeKeyser Construction, currently located in Green Bay, Wisconsin is proposing to relocate to a more rural location. This relocation includes a building a new office building and also maintaining a current building on the subject property.

The field work was completed on May 15, 2014, all vegetation was actively growing at that time. The fieldwork was complete by Aaron Holdt of George and Holdt-Soil Consultants. Aaron holds a BS in Soil Science from the University of Wisconsin-River Falls and has completed both the Basic and Advanced Wetland Training classes administered by the University of Wisconsin-La Crosse. Aaron has been mapping Wetlands for the past 7 years and has been a full time Soil Consultant for the past 16 years.

Wetland boundaries, to a degree, were established based on the routine wetland delineation method defined in the Interim Regional Supplement to the Corp of Engineers Wetland Delineation Manual: North Central and Northeast Region (Version 2). Additional guidelines set forth in the Basic Guide to Wisconsin's Wetlands and Boundaries and Field Indicators of Hydric Soils In the United States (Version 7.0) were also used in making this specific delineation. Other documents and data reviewed prior and after making the initial field visit included Web Soil Survey, WDNR Surface Water Data Viewer, Soil Survey of Brown County, Brown County Arc-View, Soil Taxonomy and Soils of Wisconsin.

To the best of our knowledge, there had been no previous Wetland Delineation conducted on the subject property. Upon visiting the site for our initial review in early May 2014 it was noted that several areas appeared to be somewhat concerning in regards to exhibiting wetland characteristics.

Overall, the subject property did appear to be somewhat ambiguous in regards to readily identifiable wetlands. Areas of concern were several isolated "pockets" that exhibited spike rush and were also much wetter than the surrounding landscape. We use the word ambiguous because the overall subject parcel is relatively level in regards to landscape position. The areas of concern were quite subtle in regards to landscape position. A closer observation did reveal that the concerning areas were lower in elevation but the changes in relief were typically less than a foot. The dominate vegetation throughout the entire subject area consisted of a monoculture of dense Kentucky Blue Grass. The areas of concern revealed stressed (denitrified) conditions and the emergence of the aforementioned spike rush, although not dense, were readily identifiable.

It should be mentioned that the past land use was a golf driving range. The current state of the property is essentially the same as when it was being used for a golf driving range. Upon a history review of the property after our initial site visit, it was noted that the site had been filled extensively in 1994. Mechanical disturbance has included the addition, compacting and leveling of 18-20" of clay loam fill across much of the subject area. In addition to the earthy fill material, a layer of silt loam "topsoil" was put in place to allow for the establishment of the Kentucky Blue Grass across the project area.

At this time, it was noted that standard soil evaluation procedures could not be relied upon to establish accurate diagnostic soil horizons and or boundaries between hydric and non-hydric soils. The earthy fill material created a scenario where we are no longer evaluating an in-situ soil in regards to morphology and/or classification. Soil borings through the fill did reveal a remnant buried Ap horizon in some instances but in other borings, it was evident that the original Ap horizon had been stripped. Since we do not know the drainage regime of the fill material, it is nearly impossible to address whether high or low chroma redoximorphic features have formed in the fill material since placement or were "transported" to the site from a poorly to very poorly drained soil.

The approach we took on this site, regarding differentiating areas of current wetlands vs. current non-wetlands are as follows:

1) Areas of original concern were evaluated for vegetation, hydrology, and redoximorphic features in the surface fill material. This evaluation was then correlated to other areas of the subject property.
2) Hydrology was more enhanced in the areas of concern; these areas exhibited a higher degree of wetness and soil saturation.
3) High chroma redox features were evaluated in the surface fill material in the areas of concern and this was contrasted to the surface fill material in other areas of the subject property. High chroma redox features were observed in high concentrations within the first 12" of the filled surface horizons in the areas we felt could be considered wetlands. In comparison, high chroma redox features were absent or limited in concentration in areas that did not exhibit obvious wetness and/or the emergence of facultative wetland plants.

4) We also looked at plant stress as a measure of wetness, Kentucky Blue Grass, under constant saturation will become stressed (denitrified) and will remain dormant longer in the spring of the year during recharge periods. As utilization starts to occur and saturation levels drop, the grass becomes less stressed and can be in indistinguishable to areas that are not stressed in early spring.

Using the above noted criteria, we feel fairly confident that the areas delineated on the accompanying wetland map meet the qualifications as a wetland. Soil borings in the wetland areas did reveal less fill in most instances and because of the original drainage class, the differences in fill depths are a contributing factor to these areas of concerns being identified by us as a wetland. An area that appears to have been limited in regards to fill depth is located adjacent to the north property line. This area is more pronounced in regards to being an identifiable wetland. It is our belief that this area was left in a more natural state to allow for surface water drainage away from the driving greens. This area *may be* the best reflection of what the property looked like originally, prior to the fill placement. With that in mind, this area also is concentrating water from the property to the north and also from the subject property because it is significantly lower in elevation. This concentration of surface water, combined with the slowly permeable soils may have also resulted in a more pronounced wetland and/or in this case, a created wetland.

We are considering all the isolated wetlands that we have identified as Emergent Wet Meadows.

A review of the Brown County Soil Survey and the Web Soil Survey indicate the filled subject area was originally mapped as a Aquollic Hapludalfs (Manawa Series). The Manawa series is further described as a somewhat poorly drained soil. The Web Soil Survey indicates a very low hydric rating (4) but it has been our experience that in the case of depressions and interfluve areas located within the Manawa series, it is possible to find soils that meet the hydric classification. We believe, in this instance, the areas defined as wetlands on our map may have been former depressions on a nearly level landscape.

We are making no attempt to differentiate soil matrix color percentages on the attached data sheets. To do so would be inferring that we know the origins of the fill material and/or if the redox features noted were subject to transport material and/or a result of mechanical procedures being used in the placement and compacting of the fill material.

As on any filled site, there are many unknowns. As it relates to this site, fill depths have not been consistent to render the entire site upland but they have been sufficient to allow a large portion of the subject area to be considered upland. The surrounding landscape may be the best indicator of the original landscape, in this case, this would be a nearly level glacial till plain that is intermixed with low depression areas that exhibit readily identifiable wetlands.

Observing the site during utilization and/or depletion may cause the observer to disregard the areas we have delineated as wetlands. We believe the process and investigation of this site to be both technically sound and reasonable in regards to approach.

The wetland boundaries established and delineated on this property are based upon George & Holdt-Soil Consultants best estimate. As we have stated in the report, this site is somewhat ambiguous because of the history and the fill material. For that reason, we would recommend agency concurrence from the WDNR.

Respectfully,

Aaron Holdt
George and Holdt-Soil Consultants, LLC